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Naoki Oguchi

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KATTEN MUCHIN ROSENMAN LLP
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER

BRUCKART, BENJAMIN R

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/825,178	Applicant(s) OGUCHI, NAOKI	
	Examiner BENJAMIN R. BRUCKART	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Status of Claims:

Claims 1-3 are pending in this Office Action.

Claim 1 is amended.

The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

Response to Arguments

Applicant's arguments filed in the amendment filed 2/14/08, have been fully considered but are found not persuasive. The reasons are set forth below.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 101

Claims 1-3 are directed to statutory subject matter. The claims cite a communication data relay system between two or more domains that is interpreted to be a machine because the system is embodied on hardware (instant specification: Fig. 2, para 86-91).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent No. 6,888,837 by Cunningham et al (Applicants IDS) in view of U.S. Patent No. 7,016,980 by Mayer et al.

Regarding claim 1, the Cunningham reference teaches a communication data relay system for relaying between two or more domains each configured by one or more networks, a relay source domain having routing information to a relay destination domain (Cunningham: col. 3, lines 47-56), comprising:

two or more interface modules for accessing said networks (Cunningham: col. 10, lines 56-65; Fig. 11);

a domain definition module for defining a domain configured by said one or more networks, said domain definition module storing an interface identifier for identifying an interface module in association with a domain identifier for identifying said domain (Cunningham: col. 5, lines 10-61; global address mappings when referenced from address domains), wherein a set of one or more networks, each connected to interface modules identified by one or more interface identifiers corresponding to said domain identifier is identified as said domain (Cunningham: col. 5, lines 10-61; Figures 2a-2c; Fig. 1);

an inter-domain communication definition module for defining connectibility between said two or more domains defined by said domain definition module, said connectibility based on a combination of the following parameters: a source/destination domain identifier, an inter-domain communicability field, and a translation rule (Cunningham: col. 7, lines 20- col. 8, line 26; Fig. 2d);

a routing information storage module for storing domain routing information corresponding to each of said two or more domains defined by said domain definition module (Cunningham: Figs 2a-2c), said domain routing information including a destination network address to which a packet is sent, a next-hop gateway address to which said packet is relayed, an output interface identifier for identifying the interface module to which said packet is output, and said domain identifier defined in said domain definition module for identifying the correspondence between said domain routing information and each of said two or more domains defined by said domain definition module (Cunningham: col. 5, lines 62- col. 6, line 15; Fig. 2d);

a relay control unit for controlling relay of the communication data, wherein said relay control unit controlling the relay of the communication data with reference to said domain routing information corresponding to the domain concerned in the case of a relay within said same domain (Cunningham: col. 5, lines 59-61; Fig. 2d, tag 238; route to same domain),

The Cunningham reference fails to teach judging whether communication is permitted.

However, the Mayer reference teaches:

and said relay control unit judging whether communication between the domains is permitted or not for the relay on the basis of said inter-domain communicability field which is held in said inter-domain communication definition module and defined for each combination of source domain identifier and destination domain identifier (Mayer: col. 5, lines 17-38), in the case of a relay between the domains different from each other so as to relay the communication data between the domains different from each other if communication is judged to be permitted (Mayer: col. 1, lines 22-43; col. 5, lines 17-38)

wherein, when communication is judged to be permitted, the relay control unit translates address information included in the communication data on the basis of said translation rule which is held in said inter-domain communication definition module and defined for each combination of source domain identifier and destination identifier, registers, in an address translation table, mapping information indicating a mapping of said address information before being translated to said address information after being translated, and relays the communication data between the domains different from each other on the basis of said mapping information

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registered in said address translation table (Mayer: col. 1, lines 22-43; col. 3, lines 50-65; col. 5, lines 20-38) in order to implement security and cost effective measures of packet filtering (Mayer: col. 2, lines 51-67).

It would have been obvious at the time of the invention to one of ordinary skill in the art to create the method of domain communication as taught by Cunningham to include access control as taught by Mayer in order to implement security and cost effective measures of packet filtering (Mayer: col. 2, lines 51-67).

Regarding claim 2, a communication data relay system according to claim 1, further comprising a destination address search module for the relay destination domain,

wherein if the relay source domain does not have routing information to the relay destination domain, said destination address search module searches a destination address to the relay destination domain in response to a request from a source communication device within the relay source domain, and notifies said source communication device of a relay address within the relay source domain that corresponds to the destination address (Cunningham: col. 7, lines 21-col. 9, line 42; DNS name resolution to get global address), and

said relay control unit relays the communication data addressed to the relay address to the destination address in the relay destination domain (Cunningham: col. 6, lines 10-40).

Regarding claim 3, a communication data relay system according to claim 1, further comprising a routing control information storage module to the domain to which a communication data processing device for processing the communication data is connected,

wherein said relay control unit, when controlling the relay of the communication data, causes said communication data processing device to process the communication data, and relays the thus processed communication data (Cunningham: col. 16, lines 27-54; Fig. 11).

REMARKS

Applicant has amended claim 1's second limitation about the domain definition module.

The Applicant Argues:

Applicant argues the Cunningham and Mayer references do not teach the claimed limitations.

In response, the examiner respectfully submits:

The rejection is maintained because the Cunningham in view of Mayer reference does still read on the claim limitations.

First with respect to the new limitations; the Cunningham reference still teaches the amended claimed limitations.

Cunningham uses the global tables Fig 2a-2c in the network architecture of Figure 1 by centrally addressing and routing data between the domains. The domain definition module for defining a domain configured by said one or more networks is taught by Cunningham in Figures 2a-2c with the global tables and Figure 1 where an example of multiple hosts in each of the domains is shown (address domains 1-4). The domain definition module storing an interface identifier for identifying an interface module in association with a domain identifier for identifying said domain (Cunningham: col. 5, lines 10-61; global address mappings when referenced from address domains). Cunningham teaches the interface identifier is the respective host associated with that domain. Cunningham teaches wherein a set of one or more networks, each connected to interface modules identified by one or more interface identifiers corresponding to said domain identifier is identified as said domain (Cunningham: col. 5, lines 10-61; Figures 2a-2c; Fig. 1).

Mayer does teach access control based on IP address, which belong to host groups. The examiner interprets a domain to be a set of IP addresses associated to a group. Further this is not the key teaching relied upon in Mayer. Mayer is relied upon to show access control with whether data is permitted to be transmitted. Cunningham teaches a relay control unit for controlling relay of the communication data, wherein said relay control unit controlling the relay of the communication data with reference to said domain routing information corresponding to the domain concerned in the case of a relay within said same domain (Cunningham: col. 5, lines 59-61; Fig. 2d, tag 238; route to same domain).

Suggested Amendments

The examiner believes domain routing to be a very mature art in which a large amount of prior art exists. The examiner suggests amendments directed to defining the domain routing table to be a single table (see instant spec top of page 33) and detailing the interfaces.

The examiner believes an interview may advance prosecution.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R. Bruckart whose telephone number is (571) 272-3982. The examiner can normally be reached on 9:00-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin R Bruckart
Examiner
Art Unit 2155

/Benjamin R Bruckart/
Examiner, Art Unit 2155

/saleh najjar/
Supervisory Patent Examiner, Art Unit 2155